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REMARKS

Claims 1-20 are pending in this application after this Amendment. Claims 1-17 are rejected. Claims 18-20 have been newly added. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1, 7, 8 and 14-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark. (U.S. Patent 6,174,285) in view of Arling (U.S. Patent 5,872,571). Claims 2 and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark in view of Arling and further in view of Kamiyama (U.S. Patent 6,290,648). Claims 5, 6, 9 and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark in view of Arling and further in view of Detmer (U.S. Patent 6,443,896) and Coleman et al. (U.S. Patent 6,306,089), hereafter Coleman. Claims 12 and 13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Clark in view of Arling and further in view of Avila et al. (U.S. Patent 6,413,219), hereafter Avila. Applicants respectfully traverse these rejections for at least the reasons set forth below.

As an initial matter, there is no specific rejection of claims 3 and 4, however, Applicant believes claims 3 and 4 were intended to be rejected under 35 U.S.C. 103(a) as being unpatentable over Clark in view of Arling and further in view of Kamiyama. Applicant has responded accordingly.

Independent claims 1, 16 and 17 have each been amended to recite wherein "the at least one other plane related to the reference plane based on organ specific data." Applicant submits that the cited prior art fails to describe the invention as recited in amended claims 1, 16 and 17.

The independent claims have been rejected under the combination of Clark and Arling. Clark is directed to a 3-D ultrasound imaging system with pre-set, user selectable anatomical images. Specifically, a user interface 40 enables a user to select one or more of a plurality of

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pre-set views that are shown to the user as a listing on a video display 32. In response to selection of one of the pre-set views, parameters and conditions are established to automatically enable the presentation of the desired pre-set view on the video display 32 (column 3, lines 35-46).

In particular, both a transmitter 20 and a scan converter 26 of an ultrasound imaging system 10 are provided with scan tables 42 and 44 that control each in accordance with the user's pre-set view selection. The scan table 42 includes parameters that define a region of interest to be scanned assuming the positioning of a transducer 12 at a position to acquire a 3-D image data set that includes the anatomical feature selected by the user. Separate sets of parameters to control the transmitter 20 may be provided for each pre-set anatomical feature to be imaged. Additionally, in a similar manner scan table 44 is used to control scan converter 26. Scan table 44 includes for each pre-set view a separate set of parameters and control entries to enable scan converter 26 to derive, from an input 3-D data set, a view of the selected anatomical feature (column 3, lines 47-64).

In contrast, the independent claims, as amended, recite wherein "the at least one other plane related to the reference plane based on organ specific data." Relating one plane to another plane, such as relating a reference plane to another plane based on organ specific data is not described in Clark. Clark provides different parameters in a scan table that define scanning parameters for each pre-set anatomical feature to be used to control the transmitter when scanning an object or to derive a view from a 3-D data set. However, nothing in the tables or otherwise provides any type of relationship between planes based on organ specific data. Organ specific data for generating another plane from a reference plane is not described in Clark.

Moreover, Arling fails to make up for this deficiency. Accordingly, Applicant submits that independent claims 1, 16 and 17 are allowable over the cited prior art.

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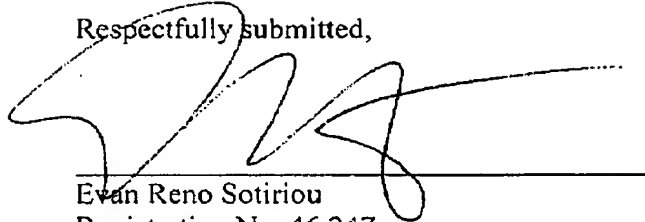
Additionally, dependent claims 2-15 are allowable based at least on the dependency of these claims from claim 1 as none of Kamiyama, Detmer, Coleman or Avila make up for the deficiencies to Clark and Arling with respect to the independent claim 1.

Finally, newly added dependent claims 18-20 that depend from claim 1 are further allowable based at least on the following reasons. Specifically, claim 18 further recites "wherein the organ specific data is based on statistically generated data." Nothing in the cited prior art describes using organ specific data that is statistically generated, for example, based on previous studies of an organ of interest or on subject at a particular time period (e.g., based on previous exams of a fetal heart at approximately twenty weeks of gestation). Further, claim 19 additionally recites "wherein the organ specific data comprises at least one formula that relates the reference plane to the at least one other plane to define one of a shift and a rotation from the reference plane to the at least one other plane." Nothing in the cited art describes using a formula based on organ specific data to shift or rotate from a reference plane to another plane. This organ specific shifting or rotation is simply not described. Claim 20 further recites "wherein the at least one formula is not pre-set and is based on a user selection." The cited prior art uses pre-set selections or changes to parameters based on a user input to generate different views. However, nothing in the cited art allows a user to select a formula to determine, for example, the amount of shifting or rotation from the reference plane to another plane. This ability to change the formula is simply not described. Accordingly, newly added dependent claims 18-20 are further allowable for at least these reasons.

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art neither anticipates nor renders obvious the claimed invention and the pending claims in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Evan Reno Sotiriou', is written over a horizontal line.

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